

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A laser material processing method for processing a printed wiring board to form a blind hole, a groove or a through hole by applying a laser beam to an insulating layer of said printed wiring board, comprising:

processing said insulating layer at a predetermined energy density;

hardening said insulating layer by applying a laser beam at a lower energy density than said predetermined energy density of ~~said first~~ the processing step around a processed portion processed in the processing step; and

removing the residual smear.

2. (previously presented): The laser material processing method according to claim 1, wherein the energy density is $0.5\text{J}/\text{cm}^2$ or less in the hardening step.

3. (currently amended): The laser material processing method according to claim 1, wherein the energy density is $0.6\text{J}/\text{cm}^2$ or less in applying the laser beam to said insulating layer ~~made of polyimide resin~~ in the hardening step, and said insulating layer is made of polyimide resin.

4. (currently amended): The laser material processing method according to claim 1, wherein the area to ~~apply which the~~ laser beam is applied in the hardening step is about double the processed area in the processing step.

5. (previously presented): The laser material processing method according to claim 1, wherein a carbon dioxide gas laser having a wavelength of 10.6 μ m is used for the laser material processing.

6. (previously presented): A laser material processing method for processing a printed wiring board to form a blind hole, a groove or a through hole by applying a laser beam to an insulating layer of said printed wiring board, comprising:

processing said insulating layer at an energy density of 15J/cm²;

hardening said insulating layer by applying a laser beam at an energy density of 0.5J/cm² or less around a processed portion processed in the processing step; and
removing the residual smear.

7. (currently amended): The laser material processing method according to claim 1, wherein one pulse of the laser beam is applied for a pulse beam ~~on~~-irradiation time of 10 μ s in the hardening step.

8. (currently amended): The laser material processing method according to claim 1, wherein laser irradiation from a first laser beam in the processing step and laser irradiation from a second laser beam in the hardening step are performed at the same time.

9. (currently amended): The laser material processing method according to claim 6, wherein one pulse of the laser beam is applied for a pulse beam ~~on~~-irradiation time of 10 μ s in the hardening step.

10. (currently amended): The laser material processing method according to claim 6, wherein laser irradiation from a first laser beam in the processing step and laser irradiation from a second laser beam in the hardening step are performed at the same time.